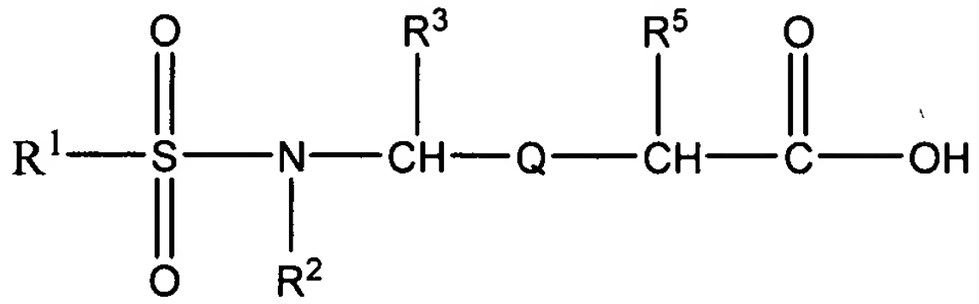
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A compound of formula I:



(I)

wherein

R^1 is selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, cycloalkyl, substituted cycloalkyl, heterocyclic, substituted heterocylic, heteroaryl and substituted heteroaryl;

R^2 is selected from the group consisting of hydrogen, alkyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, heterocyclic, substituted heterocyclic, substituted alkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

R^3 is selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, and substituted heterocyclic;

R^5 is $-(CH_2)_x$-Ar-$R^{5'}$ where $R^{5'}$ is selected from the group consisting of ~~-O-Z-NR^{8}R$^{8'}$~~ -O-Z-$NR^8R^{8'}$ and ~~-O-Z-R^{12}~~ -O-Z-R^{12} wherein R^8 and $R^{8'}$ are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, heterocyclic, substituted heterocyclic, and where R^8 and $R^{8'}$ are joined to form a heterocycle or a substituted heterocycle, R^{12} is selected from the group consisting of heterocycle and substituted heterocycle, and Z is selected from the group consisting of -C(O)- and $-SO_2$-,

Ar is aryl, heteroaryl, substituted aryl or substituted heteroaryl,

x is an integer of from 1 to 4;

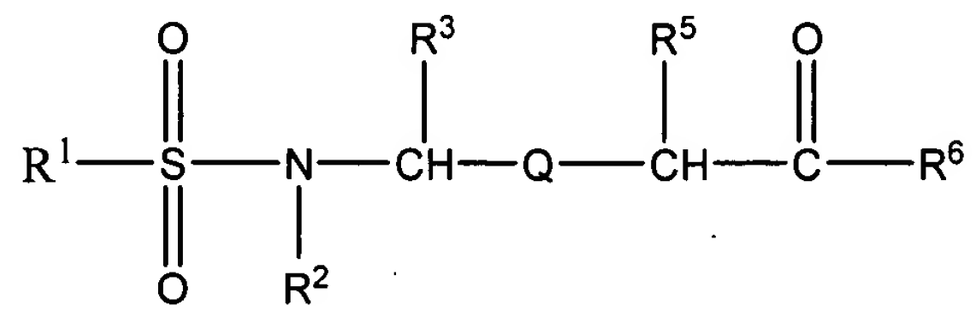
Q is $-C(X)NR^7$- wherein R^7 is selected from the group consisting of hydrogen and

alkyl; and X is selected from the group consisting of oxygen and sulfur;

and pharmaceutically acceptable salts thereof.

Claims 2–34 Cancelled.

Claim 35 (previously presented): A compound of formula IA:



(IA)

wherein

R^1 is selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, cycloalkyl, substituted cycloalkyl, heterocyclic, substituted ~~heterocylic~~ heterocyclic, heteroaryl and substituted heteroaryl;

R^2 is selected from the group consisting of hydrogen, alkyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, heterocyclic, substituted heterocyclic, substituted alkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

R^3 is selected from the group consisting of hydrogen, alkyl, substituted ~~alkyl~~-alkyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic;

R^5 is $-(CH_2)_x$-Ar-$R^{5'}$ and $R^{5'}$ is selected from the group consisting of -O-Z-NR^8 $R^{8'}$ and -O-Z-R^{12} wherein R^8 and $R^{8'}$ are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, heterocyclic, substituted heterocyclic, and where R^8 and $R^{8'}$ are joined to form a heterocycle or a substituted heterocycle, R^{12} is selected from the group consisting of heterocycle and substituted heterocycle, and Z is selected from the group consisting of -C(O)- and $-SO_2$-,

Ar is aryl, heteroaryl, substituted aryl or substituted heteroaryl,

x is an integer of from 1 to 4;

R^6 is selected from the group consisting of amino, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, -O-(N-succinimidyl), -NH-adamantyl, -O-cholest-5-en-3-β-yl, -NHOY where Y is hydrogen, alkyl, substituted alkyl, aryl, and substituted aryl, $-NH(CH_2)_pCOOY$ where *p* is an integer of from 1 to 8 and Y is as defined above, $-OCH_2NR^9R^{10}$ where R^9 is selected from the group consisting of -C(O)-aryl and -C(O)-substituted aryl and R^{10} is selected from the group consisting of hydrogen and $-CH_2COOR^{11}$ where R^{11} is alkyl, and $-NHSO_2Z'$ where Z' is alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic and substituted heterocyclic;

Q is $-C(X)NR^7-$ wherein R^7 is selected from the group consisting of hydrogen and alkyl; and X is selected from the group consisting of oxygen and sulfur;

and pharmaceutically acceptable salts thereof.

Claim 36 (previously presented): A compound according to Claims 1 or 35 wherein R^1 is selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, heterocyclic, substituted heterocyclic, heteroaryl and substituted heteroaryl.

Claim 37 (previously presented): A compound according to Claims 1 or 35 wherein R^1 is selected from the group consisting of methyl, isopropyl, *n*-butyl, benzyl, phenethyl, phenyl, 4-methylphenyl, 4-*t*-butylphenyl, 2,4,6-trimethylphenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 2,4-difluorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 2-chlorophenyl, 3-chlorophenyl, 4-chlorophenyl, 3,4-dichlorophenyl, 3,5-dichlorophenyl, 3-chloro-4-fluorophenyl, 4-bromophenyl, 2-methoxyphenyl, 3-methoxyphenyl, 4-methoxyphenyl, 3,4-dimethoxyphenyl, 4-t-butoxyphenyl, 4-(3'-dimethylamino-*n*-propoxy)-phenyl, 2- carboxyphenyl, 2-(methoxycarbonyl)phenyl, $4-(H_2NC(O)-)$phenyl, $4-(H_2NC(S)-)$phenyl, 4-cyanophenyl, 4-trifluoromethylphenyl, 4-trifluoromethoxyphenyl, 3,5-di-(trifluoromethyl)phenyl, 4-nitrophenyl, 4-aminophenyl, $4-(CH_3C(O)NH-)$phenyl, 4-

(PhNHC(O)NH-)phenyl, 4-amidinophenyl, 4-methylamidinophenyl, 4-(CH_3SC(= NH)-)phenyl, 4-chloro-3 -($H_2NS(O)_2$-)phenyl, 1-naphthyl, 2-naphthyl, pyridin-2-yl, pyridin-3-yl, pyrimidin-2-yl, quinolin-8-yl, 2-(trifluoroacetyl)- l,2,3,4-tetrahydroisoquinolin-7-yl, morpholin-4-yl, 2-thienyl, 5-chloro-2-thienyl, 2,5-dichloro-4-thienyl, 1-N-methylimidazol-4-yl, 1 -N-methylpyrazol-3-yl, 1 -N-methylpyrazol-4-yl, 1-N-butylpyrazol-4-yl, l-N-methyl-3-methyl-5-chloropyrazol-4-yl, l-N-methyl-5-methyl-3-chloropyrazol-4-yl, 2-thiazolyl and 5-methyl-1,3,4-thiadiazol-2-yl.

Claim 38 (previously presented): A compound according to Claims 1 or 35 wherein R^2 is selected from the group consisting of hydrogen, methyl, phenyl, benzyl, -$(CH_2)_2$-2-thienyl, and -$(CH_2)_2$-Φ.

Claim 39 (previously presented): A compound according to Claims 1 or 35 wherein R^3 is selected from the group consisting of methyl, phenyl, benzyl, diphenylrnethyl, -CH_2CH_2-COOH, -CH_2-COOH, 2-amidoethyl, iso-butyl, t-butyl, -CH_2O-benzyl and hydroxymethyl.

Claim 40 (previously presented): A compound according to Claims 1 or 35 wherein Q is -C(O)NH- or -C(S)NH-.

Claim 41 (previously presented): A compound according to Claims 1 or 35 wherein Ar is aryl or substituted aryl.

Claim 42 (previously presented): A compound according to Claim 41 wherein Ar is phenyl or substituted phenyl and *x* is 1.

Claim 43 (previously presented): A compound according to Claim 1 or 35 wherein R^5 is selected from the group consisting of

3-[$(CH_3)_2NC(O)O$-] benzyl,

4-[($CH_3)_2NC(O)O$-]benzyl,

4-[($CH_3)_2NS(O)_2O$-] benzyl,

4-[(piperidin- 1'-yl)C(O)O-] benzyl,

4-[(piperidin-4'-yl)C(O)O-]benzyl,

4-[(1'-methylpiperidin-4'-yl)C(O)O-]benzyl,

4-[(4'-hydroxypiperidin-1'-yl)C(O)O-]benzyl,

4-[(4'-formyloxypiperidin-l'-yl)C(O)O-]benzyl,

4-[(4'-ethoxycarbonylpiperidin- 1-yl)C(O)O-]benzyl,

4-[(4'-carboxylpiperidin- 1'-yl)C(O)O-]benzyl,

4-[(3 ' -hydroxymethylpiperidin- 1' -yl)C(O)O-]benzyl ,

4-[(4'-hydroxymethylpiperidin- 1'-yl)C(O)O-]benzyl,

4-[(4'-phenyl-1'-Boc-piperidin-4'-y1)-C(O)O-]benzyl,

4-[(4'-piperidon-1'-yl ethylene ketal)C(O)O-]benzyl,

4-[(piperazin-4'-y1)-C(O)O-]benzyl,

4-[(1'-Boc-piperazin-4'-y1)-C(O)O-] benzyl,

4-[(4'-methylpiperazin-1'-yl)C(O)O-]benzyl,

4-[(4'-methylhomopiperazin- 1' -yl)C(O)O-]benzyl,

4-[(4'-(2-hydroxyethyl)piperazin- 1'-yl)C(O)O-]benzyl,

4-[(4'-phenylpiperazin- 1' -yl)C(O)O-]benzyl,

4-[(4'-(pyridin-2-y1)piperazin- 1'-yl)C(O)O-]benzyl,

4-[(4'-(4-trifluoromethylpyridin-2-y1)piper-1'-yl)C(O)O-]benzyl,

4-[(4'-(pyrimidin-2-y1)piperazin-1'-yl)C(O)O-]benzyl,

4-[(4'-acetylpiperazin- 1'-yl)C(O)O-]benzyl,

4-[(4'-(phenylC(O)-)piperazin- 1'-yl)C(O)O-]benzyl,

4-[(4'-(pyridin-4-ylC(O)-)piperazin- 1'-yl)C(O)O-]benzyl,

4-[(4'-(phenylNHC(O)-)piperazin-1'-yl)C(O)O-]benzyl,

4-[(4'-(phenylNHC(S)-)piperazin-1'-yl)C(O)O-]benzyl,

4-[(4'-methanesulfonylpiperazin- 1'-yl-C(O)O-]benzyl,

4-[(4'-trifluoromethanesulfonylpiperazin- 1'-yl-C(O)O-]benzyl,

4-[(morpholin-4'-yl)C(O)O-] benzyl,

3-nitro-4-[(morpholin-4'-yl)-C(O)O-] benzyl,

4-[(thiomorpholin-4'-yl)C(O)O-] benzyl,

4-[(thiomorpholin-4'-yl sulfone)-C(O)O-]benzyl,

4-[(pyrrolidin- 1'-yl)C(O)O-] benzyl,

4-[(2'-methylpyrrolidin-1'-yl)C(O)O-]benzyl,

4-[(2' -(methoxycarbonyl)pyrrolidin- 1'-yl)C(O)O-] benzyl,

4-[(2'-(hydroxymethyl)pyrrolidin-1'-yl)C(O)O-]benzyl,

4-[(2'-(N,N-dimethylamino)ethyl)(CH_3)NC(O)O-]benzyl,

4-[(2'-(N-methyl-N-toluene-4-sulfonylamino)ethyl)(CH_3)N-C(O)O-]benzyl,

4-[(2'-(morpholin-4'-yl)ethyl)(CH_3)NC(O)O-]benzyl,

4-[(2'-(hydroxy)ethyl)(CH_3)NC(O)O-] benzyl,

4-[bis(2'-(hydroxy)ethyl)NC(O)O-]benzyl,

4-[(2'-(formyloxy)ethyl)(CH_3)NC(O)O-]benyl,

4-[($CH_3OC(O)CH_2$)HNC(O)O-]benzyl,

4-[2'-(phenylNHC(O)O-)ethyl-]HNC(O)O-]benzyl,

3-chloro-4- [$(CH_3)_2$NC(O)O-]benzyl,

3-chloro-4-[(4'-methylpiperazin-1'-yl)C(O)O-] benzyl,

3-chloro-4-[(4'-(pyridin-2-yl)piperazin-1'-yl)C(O)O-]benzyl,

3-chloro-4-[(thiomorpholin-4'-yl)C(O)O-] benzyl and

3-fluoro-4-[$(CH_3)_2$NC(O)O-] benzyl .

Claim 44 (previously presented): A compound according to Claim 35 wherein R^6 is selected from the group consisting of 2,4-dioxo-tetrahydrofuran-3-yl (3,4-enol), methoxy, ethoxy, *n*-propoxy, isopropoxy, *n*-butoxy, *t*-butoxy, cyclopentoxy, cyclopropylmethoxy, neopentoxy, 2-α-isopropyl-4-β-methylcyclohexoxy , 2-β-isopropyl-4-β-methylcyclohexoxy, 2-methoxyphenoxy, 2-(morpholin-4-yl)ethoxy, -$O(CH_2CH_2O)_2CH_3$, 2-(phenoxy)ethoxy , -

$OCH_2C(CH_3)_2NHBoc$, $-NH_2$, benzyloxy, $-NHCH_2COOH$, $-NHCH_2CH_2COOH$, -NH-adamantyl, $-NHSO_2$-*p*-CH_3-Φ, $-NHCH_{,2}CH_2COOCH_2CH_3$, -NHOY' where Y' is hydrogen, methyl, *iso*-propyl or benzyl, -O-(N-succinimidyl), -O-cholest-5-en-3-β-yl, $-OCH_2$-$OC(O)C(CH_3)_3$, $-O(CH_2)_zNHC(O)W$ where *z* is 1 or 2 and W is selected from the group consisting of pyrid-3-yl, N-methylpyridyl, and N-methyl-1,4-dihydro-pyrid-3-yl, -NR"C(O)-R' where R' is aryl, heteroaryl or heterocyclic and R" is hydrogen or $-CH_2C(O)OCH_2CH_3$.

Claim 45 (previously presented): A compound selected from the group consisting of:

N-(toluene-4-sulfonyl)sarcosyl-L-4-(*N*, *N*-dimethylcarbamyloxy)phenylalanine isopropyl ester

N-(toluene-4-sulfonyl)sarcosyl-L-4-(*N*,*N*- dimethylcarbamyloxy) phenylalanine *tert*-butyl ester

N -(toluene-4-sulfonyl)sarcosyl-L-4-(*N*,*N*- dimethylcarbamyloxy) phenylalanine

N-(toluene-4-sulfonyl)sarcosyl-L-4-(morpholin-4-ylcarbonyloxy)phenylalanine *tert*-butyl ester

N -(toluene-4-sulfonyl)sarcosyl-L-4-(isonipecotoyloxy) phenylalanine

N-(toluene-4-sulfonyl)sarcosyl-L-4-(4-methylpiperazin-1-ylcarbonyloxy) phenylalanine *tert*-butyl ester

N-(toluene-4-sulfonyl)-L-N-methylalanyl-L-4-(4-methylpiperazin-1-ylcarbonyloxy) phenylalanine *tert*-butyl ester

N-(toluene-4-sulfonyl)sarcosyl-L-4-(thiomorpholin-4-ylcarbonyloxy) phenylalanine *tert*-butyl ester

N-(toluene-4-sulfonyl)sarcosyl-L-4-(1,1-dioxothiomorpholin-4-ylcarbonyloxy) phenylalanine *tert*-butyl ester

N-(toluene-4-sulfonyl)sarcosyl-L-4-(thiomorpholin-4-ylcarbonyloxy) phenylalanine

N-(toluene-4-sulfonyl)-L-N-methylalanyl-L-4-(*N*,*N*-dimethylcarbamyloxy)phenylalanine *tert*-butyl ester

N-(toluene-4-sulfonyl)sarcosyl-L-4-(1,1-dioxothiomorpholin-4-ylcarbonyloxy)phenylalanine

N-(toluene-4-sulfonyl)-L-N-methylalanyl-L-4-(*N,N*-dimethylcarbamyloxy)phenylalanine

N-(toluene-4-sulfonyl)-L-*N*-methyl-2-(*tert*-butyl)glycinyl-L-4-(4-methylpiperazin-1-ylcarbonyloxy)phenylalanine *tert*-butyl ester

3-[*N*-(toluene-4-sulfonyl)-*N*-methylamino]-1-[1-carboxy-2-(*N, N*-dimethylcarbamyloxy) phenylethyl] azetidine

N-(toluene-4-sulfonyl)-L-prolyl-L-4-(isonipecotoyloxy) phenylalanine *tert*-butyl ester

N-(methanesulfonyl)-N-benzylglycinyl-L-4-(*N,N*-dimethylcarbamyloxy)phenylalanine *tert*-butyl ester

and pharmaceutically acceptable salts thereof as well as any of the ester compounds recited above wherein one ester is replaced with another ester selected from the group consisting of methyl ester, ethyl ester, *n*-propyl ester, isopropyl ester, *n*-butyl ester, isobutyl ester, *sec*-butyl ester, *tert*-butyl ester and neopentyl ester.

Claims 46–56 Cancelled.

Claim 57 (previously presented): A method for binding VLA-4 in a biological sample which method comprises contacting the biological sample with a compound of Claim 1 or 35 under conditions wherein said compound binds to VLA-4.

Claims 58 and 59 Cancelled.